

**WHAT IS CLAIMED IS:**

1. A call pick-up system of a switching device, comprising:
  - a subscriber call process block for performing a call pick-up function in the switching device; and
    - a caller information analysis block, included in the subscriber call process block, for analyzing caller information and providing the analyzed information to a call pick-up subscriber.
2. The system of claim 1, wherein the caller information analysis block generates a message requesting the caller information, sends the message to one or more ringed subscribers, receives a response message from each ringed subscriber, analyzes the caller information included in the response messages, and builds a caller information table using the caller information and telephone numbers of each ringed subscriber.
3. The system of claim 1, wherein the caller information table includes the caller information and the subscriber telephone number and assigns a unique identifier number to each caller's number.
4. The system of claim 1, further comprising:
  - a call process common block which controls actions for performing call pick-up features;

a digit analysis block which analyzes digits dialed by a subscriber and determines whether the dialed digits match the call pick-up feature code or match the unique identifiers (IDs);

a ring search block which analyzes states of subscribers belonging to a call pick-up group and searches all ringed subscribers; and

a LCD control block or a LCD/LED control block which displays the information analyzed at the caller information analysis block on the LCD (Liquid Crystal Display) or LED (Light Emitting Diode) of the telephone of the call pick-up subscriber.

5. A call pick-up system of a switching device, comprising:

a caller information analysis block which analyzes information of a caller who made a call to a specific subscriber and provides the analyzed information to a call pick-up subscriber;

a call process common block which controls actions for performing call pick-up features;

a digit analysis block which analyzes digits dialed by the subscriber and determines whether the dialed digits match a pick-up feature code or match a unique ID;

a ring search block which analyzes states of a subscriber belonging to a call pick-up group and searches for all ringed subscribers; and

a LCD control block or a LCD/LED control block that displays information analyzed at the caller information analysis block on the LCD (Liquid Crystal Display) or LED (Light Emitting Diode) of telephone of the call pick-up subscriber.

6. The system of claim 5, wherein the caller information analysis block generates a message requesting the caller information, sends the message to one or more ringed subscribers, receives a response message from each ringed subscriber, analyzes the caller information included in the response messages, and builds a caller information table using the caller information and telephone numbers of each ringed subscriber.

7. The system of claim 5, wherein the caller information table includes the caller information and the subscriber telephone number and assigns a unique identifier number to each caller's number.

8. A call pick-up method of a switching device, comprising:  
searching for ringed subscribers belonging to a same call pick-up group of a switching device;  
receiving caller information from the searched ringed subscribers; and  
providing the caller information to a call pick-up subscriber and performing a selective call pick-up by using the caller information.

9. The method of claim 8, wherein the caller information includes the caller's telephone number or name.

10. The method of claim 8, wherein executing the call pick-up comprises:  
analyzing dialed digits by the call pick-up subscriber and determining whether the dialed digits match a call pick-up feature code;

searching for the ringed subscribers belonging to the same call pick-up group and transmitting the caller information request message to each identified ringed subscriber;

receiving a response message including the caller information from the ringed subscribers, analyzing the received information, and building a caller information table;

notifying the call pick-up subscriber of the caller information by using the caller information table which includes the caller information of the ringed subscribers;

analyzing the dialed digits by the call pick-up subscriber, determining whether the dialed digits match a specific caller selection code, and notifying one or more ringed subscribers of the existence of the call pick-up subscriber;

receiving a response message from the ringed subscriber and transmitting the response message to the call pick-up subscriber; and

receiving a call pick-up notice message from the call pick-up subscriber, transmitting the message to the specific caller, and receiving a response message, thereby enabling one-to-one communication.

11. The method of claim 10, wherein the caller information table is built by using a caller information subscriber telephone number and a unique identifier number which is assigned to each caller's number.

12. The method of claim 10, wherein executing the call pick-up further comprises:

allowing telephones of the ringed subscribers to continue to ring so that another call pick-up subscriber can pick up the call when the call pick-up subscriber sends the code for giving up the call pick-up; and

waiting for receipt of the call pick-up feature code.

13. The method of claim 10, wherein executing the call pick-up further comprises:

checking whether there are other ringed subscribers in the same call pick-up group;

transmitting a caller information request message to the relevant ringed subscribers; and

receiving the caller information from the ringed subscribers by analyzing the received information and updating the caller information table.